Texas Water Development Board

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TO: Board Members

THROUGH: Kevin Patteson, Executive Administrator
Robert E. Mace, Deputy Executive Administrator, Water Science & Conservation

FROM: Ruben S. Solis, Director, Surface Water Resources
Carla G. Guthrie, Team Lead, Bays and Estuaries

DATE: July 9, 2015

SUBJECT: Contract Amendment for the Coastal Impact Assistance Program Biological Study of San Antonio Bay (TWDB #1300011546)

ACTION REQUESTED

Authorize the executive administrator to execute a contract amendment to increase TWDB Contract #1300011546 to a total amount not to exceed $300,000 for continuation of a biological study of San Antonio Bay.

BACKGROUND

In 2007, the U.S. Congress allocated Coastal Impact Assistance Program (CIAP) funds through the U.S. Fish and Wildlife Service to oil producing states for projects which conserve, restore, enhance and protect the coastal zone. Over $109 million was allocated to the Texas General Land Office to support projects defined within the State CIAP Plan. The Texas Water Development Board has been the recipient of two awarded projects which include *A Biological Study of San Antonio Bay* and development of a *Coastal Geodatabase.* Both are in their second phase of work with completion dates scheduled for late 2016.

The biological study of San Antonio Bay is one part of a larger *Estuary Responses Project* that was envisioned by the San Antonio River Authority, Guadalupe-Blanco River Authority, Texas A&M University (main campus and Corpus Christi campus), and The University of Texas at Austin–Center for Research in Water Resources to establish a scientific basis for evaluating the effects of the proposed Lower Guadalupe Water Supply Project (circa 2004). Prior to receiving CIAP funding, the river authorities contracted with the University of Texas at Austin–Center for Research in Water Resources to inventory available datasets, evaluate the applicability of existing freshwater inflow methods, and formulate a broader project plan for completing the technical tasks associated with the *Estuary Responses Project*.

In fiscal year 2009, the Texas General Land Office awarded $88,500 in CIAP funding for *Phase 1* (now complete) of *A Biological Study of San Antonio Bay*, and in fiscal year 2013, they awarded $310,000 for *Phase 2* (now in progress). Consistent with the intent of the *Estuary Responses Project*, technical work for *Phase 1* and *Phase 2* have been subcontracted to the University of Texas at Austin–Center for Research in Water Resources. The overall project focuses on studying the interactions of ecology and hydrology in San Antonio Bay and includes compiling and analyzing historical datasets, describing the role of the Cedar Bayou pass, and understanding the relationship between freshwater inflow, salinity, and the population dynamics of important estuarine species.

During *Phase 1*, The University of Texas completed reports describing the historical hydrology and life history of blue crab populations in San Antonio Bay and the geomorphology of Cedar Bayou. *Phase 2* focuses on acquiring additional datasets and conducting more extensive data analyses and modeling scenarios to tease apart the important factors affecting bay salinity, bay circulation, and population dynamics over the historic record. As *Phase 2* progressed, two unexpected but significant datasets were acquired from the Philadelphia Academy of Natural Sciences (1950 – 1972) and the Texas Parks and Wildlife Department San Antonio Bay Project (1971 – 1974). These records had to be digitized but greatly expanded the record of available data during the 1950s through early 1970s – a period which includes both extreme hydrological conditions as well as an opened Cedar Bayou. This welcome addition along with recent interests of regional stakeholders led staff to reevaluate and reassign the project tasks. Staff elected to refine historical estimates of freshwater inflow and conduct bay hydrodynamic modeling scenarios as an *in-kind* service to the project in order to allow additional funding to support the subcontracted work. Together, the combined effort should produce a much more complete understanding of the historical conditions and important factors driving the ecology of this estuary.

KEY ISSUES

Total funding awarded to the Texas Water Development Board for *Phase 2: A Biological Study of San Antonio Bay* is $310,000. The current subcontract with The University of Texas at Austin –Center for Research in Water Resources (TWDB Contract #1300011546) is $249,000. The Texas General Land Office recently approved a contract amendment for the Texas Water Development Board (TWDB #1300011545) to extend the project end date to October 31, 2016, and to authorize $300,000 for continued subcontract work. This Board item seeks authorization to increase the subcontract by $51,000, bringing the total for technical analysis and reporting to $300,000. Texas Water Development Board will retain $10,000 for administrative purposes.

RECOMMENDATION

The Executive Administrator recommends approval of this item.

This recommendation has been reviewed by legal counsel and complies with applicable statutes and Board rules.

Les Trobman, General Counsel

Attachment A: Exhibit A - Revised scope of work for *Phase 2 - A Biological Study of San Antonio Bay* study being completed by The University of Texas at Austin